Comparison of ISMP and New Ad Hoc Implementing Standard Requirements

ISMP Requirement	New Ad Hoc Standard Requirement	Comments
1.3.19 Deactivation All of the previously discussed elements of the TWRS-P Facility safety approach are applied to the deactivation phase of the project. In addition, the TWRS-P Facility incorporates design provisions to facilitate deactivation and final decommissioning. These provisions reduce radiation exposure to Hanford Site personnel and the public during and following deactivation and decommissioning activities and minimize the quantity of radioactive waste generated during deactivation.	**1.0 INTRODUCTION** All elements of the **RPP-WTP** Facility safety approach **are** applied to the deactivation phase of the project. In addition, the **RPP-WTP** Facility **will** incorporate design provisions to facilitate deactivation and final decommissioning **as described in the implementing standard G-10 CFR835/B2, *Occupational ALARA Program,* for SRD Criterion 8.0 – 2.** These provisions will reduce radiation exposure to Hanford Site personnel and the public during and following deactivation and decommissioning activities and minimize the quantity of radioactive waste generated during deactivation. **The purpose of this standard is to define the attributes that must be addressed during the preparation of the deactivation plan to protect both the Hanford Site personnel and the public both during and after the deactivation stage of the project.**	The new ad hoc standard includes the intent of the ISMP text and provides amplification on design requirements and provides a purpose statement.
A deactivation plan is prepared prior to construction of the TWRS-P Facility. The deactivation plan provides details on how the following activities will be accomplished to achieve a deactivated status for the facility. 1) Verification of the completion of the facility deactivation end point. (The term facility deactivation end point refers to the set of conditions that comprise the completion of facility deactivation [i.e., radiological, structural, equipment, and documentation])	**2.0 PLAN PREPARATION** A deactivation plan **will be** prepared prior to construction of the RPP-WTP Facility. The deactivation plan **will** provide details on how the following activities will be accomplished to achieve a deactivated status for the facility. 1) Verification of the completion of the facility deactivation end point. The term facility deactivation end point refers to the set of conditions that comprise the completion of facility deactivation,	The new ad hoc standard includes the intent of the ISMP text and also discusses end points.

Note: Center column text in bold represents new material to clarify the intent of the original ISMP requirements.

Comparison of ISMP and New Ad Hoc Implementing Standard Requirements

ISMP Requirement	New Ad Hoc Standard Requirement	Comments
	i.e., radiological, structural, equipment, and documentation. **These general end points will be defined in the deactivation plan and a requirement made to determine specific end points. When these end point criteria are met the facility will be in a safe state that can be economically monitored and maintained until final decommissioning.**	
2) Documentation of the regulatory status, conditions, and inventories of remaining radioactive and hazardous materials and health and safety requirements	2) Documentation of the regulatory status, conditions, and inventories of remaining radioactive and hazardous materials and health and safety requirements. **After facility construction but before deactivation commences, the deactivation plan will require a hazard evaluation for radiological, nuclear, and process safety be carried out. Safety standards and requirements will be identified to implement the controls to protect against the facility hazards.**	The new ad hoc standard includes the wording of the ISMP text and also discusses hazards evaluation and standard identification.
3) Modification of the facilities, structures, support systems, and surveillance systems to provide for confinement and monitoring of the remaining contamination, radiation, and other potential hazards	3) **Identification** of the facilities, structures, support systems, and surveillance systems to provide for confinement and monitoring of the remaining contamination, radiation, and other potential hazards. **After facility construction but before deactivation commences, the plan will be expanded to describe the activities required to maintain the operability of critical equipment and to maintain the structural integrity of the deactivated facility. It will identify modification requirements to systems for the above purposes.**	The new ad hoc standard includes the intent of the ISMP text and also discusses operability.
4) Posting and securing of the facility	4) Posting and securing of the facility. **After facility**	The new ad hoc standard includes the text of

Note: Center column text in bold represents new material to clarify the intent of the original ISMP requirements.

Comparison of ISMP and New Ad Hoc Implementing Standard Requirements

ISMP Requirement	New Ad Hoc Standard Requirement	Comments
	construction but before deactivation commences, the plan will identify the radiological controls required for the deactivated facility, which will include posting of radiological areas. The need for other safety postings will also be identified.	the ISMP text and expands on the posting and securing discussion.
5) Removal of packaged special nuclear materials and other packaged radiological and chemical materials	5) Removal of packaged special nuclear materials and other packaged radiological and chemical materials.	The new ad hoc standard uses the same text as the ISMP.
6) Confirmation that security systems and procedures are adequate and in place to prevent unauthorized entry.	6) Confirmation that security systems and procedures are adequate and in place to prevent unauthorized entry.	The new ad hoc standard uses the same text as the ISMP.
	7) Waste minimization during the deactivation process.	The ad hoc standard added a new requirement.
	3.0 SUMMARY **The above requirements for the deactivation plan in combination with measures taken at the design stage of the project will protect the Hanford Site personnel and the public both during and following the deactivation activities.**	The new ad hoc standard added a summary statement not contained in the ISMP
	4.0 DEFINITIONS **Deactivation - Placing the facility in stable and known conditions, identifying hazards, eliminating or mitigating hazards, and transferring programmatic and financial**	The new ad hoc standard added definitions for clarity.

Note: Center column text in bold represents new material to clarify the intent of the original ISMP requirements.

Comparison of ISMP and New Ad Hoc Implementing Standard Requirements

ISMP Requirement	New Ad Hoc Standard Requirement	Comments
	responsibilities from the operating program to the disposition program. Surveillance and maintenance continues to assure public, environment, and worker safety. The facility is in a safe storage mode, with ongoing, low levels of surveillance and maintenance. The general intent is that the facility be unoccupied and locked except for periodic inspections. Radioactive and hazardous materials may remain in the facility and are subject to ongoing regulatory oversight. (DOE/EM-0318, *Facility Deactivation Guide -- Methods and Practices Handbook*, December 1996) **Decommissioning - The process of removing a facility from operation, followed by decontamination, entombment, dismantlement, or conversion to another use. (DOE G 430.1-1A, *Life Cycle Asset Management*)** **Decontamination - The reduction or removal of contaminating radioactive material from a structure, area, object or person. Decontamination may be accomplished by (1) treating the surface to remove or decrease the contamination, (2) letting the material stand so that the radioactivity is decreased as a result of natural decay, and (3) covering the contamination to shield or attenuate the radiation emitted. (Health Physics and Radiation Health Handbook, Revised Edition, Bernard Shleien, 1992)** **End Point - Specifying and achieving end points is a systematic, engineering way of proceeding from an existing condition to a stated desired final set of conditions in which the facility is safe and can be economically monitored and maintained.**	

Note: Center column text in bold represents new material to clarify the intent of the original ISMP requirements.

Comparison of ISMP and New Ad Hoc Implementing Standard Requirements

ISMP Requirement	New Ad Hoc Standard Requirement	Comments
	(DOE/EM-0318, *Facility Deactivation Guide -- Methods and Practices Handbook*, December 1996)	

Note: Center column text in bold represents new material to clarify the intent of the original ISMP requirements.